

denunciation of his claims. Hence, the writer appreciates all the more the support that has been given by those who have discussed this subject. The occasional opposition encountered nowadays seems to come from those sources where the methods of diagnosis have been improperly or unskillfully applied, or where the patients have not been selected. There should be a word of warning against the indiscriminate and unskillful application of the tests; neither should the possibility of co-existing lesions elsewhere be overlooked.

The remarks brought out in the discussion are all in accord with the subject. It is encouraging to learn that stricture of the ureter is beginning to receive more general recognition. It is hoped that the explanation of the mechanism of this condition will make the subject clearer to a greater number of physicians.

## Clinical Notes and Case Reports

### ROCKY MOUNTAIN SPOTTED FEVER— REPORT OF A FATAL CASE

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*This report of Rocky Mountain spotted fever near Lake Tahoe is a matter of considerable importance to both public and personal health doctors, as well as to the people of Nevada and California.*

*Prompt energetic action NOW might prevent subsequent extensive expense and loss of life.—EDITOR.*

This case is reported because we know of no other cases coming from this extreme western section of the state.

J. P., 44, rancher. Family history: negative. Past history: typhoid, age 18. Present illness: On May 24, while driving cattle near Como, about thirty-five miles east of Lake Tahoe, he was bitten by several ticks. He noticed no symptoms until May 28, when he had a chill followed by severe headache and pains in the joints and lumbar region. These symptoms continued until June 4.

The headache was frontal and throbbing. There was a slight unproductive cough. Constipation was present, and the urine was reduced in amount. The face was flushed, the conjunctivae injected, and the pupils reacted normally to light and accommodation. There were no adenopathies and no stiffness of the neck. Respirations were 30, the lungs were clear; pulse 100, full and strong; blood pressure 140/90, and there were no adventitious heart sounds. The abdomen was not tender; liver and spleen not palpable. The reflexes were normal. The urine showed a specific gravity of 1022, acid. Alb. 0; sugar 0, but with great numbers of granular and blood casts. The blood Hg. 80 per cent; r. b. c. 4,400,000; w. b. c. 16,000. Polys. 60 per cent; l. m. 20 per cent; s. m. 15 per cent; trans. 5 per cent. Eosin. 0. Baso. 0. Wassermann negative. Blood culture not taken. *Derma-centroxenus rickettsii* not found in smears. Tissue sent to Dr. G. Rusk for biopsy.

At this time (June 1) a faint rash could be seen, consisting of rose-colored macules about 1-3 mm. in diameter, not elevated, and disappearing on pressure. The rash was more prominent on the wrists, ankles, arms, and back. By June 4, the macules assumed a purplish color and became larger and did not disappear on pressure. On June 5, petechial hemorrhages of varying size appeared in the cutaneous and subcutaneous tissue. The skin was not sensitive except on the scrotum, where there was a hemorrhagic area the size of a dollar which was very tender. From June 1 to June 4 his condition continued practically unchanged. On June 4 he became irrational. The temperature dropped to normal, the pulse increased to 130, and the blood pressure dropped to 80/60. He gradually became worse and died June 8, the twelfth day of the disease.

### ADRENALIN (INTRACARDIAC) SAVES CESAREAN INFANT

By JULIUS R. HAMILTON, M. D., Hollywood, Calif.

EDITOR'S NOTE—*Doctor Hamilton here presents the kind of a case report that delights, because his useful message is so briefly, yet withal so well presented, that it will be widely read.*

As the result of an ankylosed condition of practically all joints due to a long-standing arthritis of about seventeen years, it was necessary at termination of pregnancy to effect delivery by Cesarean section. The operation and subsequent recovery of the mother was uneventful. The placenta was attached to the posterior surface of the anterior wall of the uterus, and it was necessary to continue the incision through it, which, of course, interfered with the blood supply of the child. The cord encircled the child by several turns, and by the time this was freed and the child delivered, though with no undue delay, there were no signs of viability in the child whatever. The color was and remained grayish, no flushing, no efforts of respiration, and no heart sounds. The many usual methods of resuscitation were employed over a period of at least fifteen minutes, with negative results, after which time I resorted to an intracardiac injection of 8 minims of 1 to 1000 solution of adrenalin. Artificial respiration was continued, and in perhaps thirty to forty-five seconds I detected a slight fluttering impulse under my hand which was over the heart. This flutter was repeated, and then impulses were distinctly present, which became rapidly more regular and stronger. It was perhaps five or six minutes later, artificial respiration being constantly employed, before voluntary respiration was established. There was no further medication, and to the present time, which is four months, the child seems perfectly normal.

I felt a little hesitancy in using a dose as large as 8 minims, thinking of possible convulsions if successful in resuscitation, but the moribund state over that period of time, I thought, warranted it, and there were no ill effects whatever. I have purposely delayed reporting this case, to note any possible resulting complications due to the above procedure, but have discovered none, and of the four cases I found reported, three had died within thirty-six hours.

### THE AFTER CARE OF INDUSTRIAL ACCIDENTS

By A. J. LANGAN, M. D.,

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It is mainly with the after care that the average industrial surgeon is mostly concerned. The after care is where most surgeons make the mistake of taking for granted that the injury is progressing satisfactorily, and allow a nurse or assistant to follow up the treatments. It is in this manner that contractures, ankylosis, infection, slipping back of fractures, are most apt to occur and result disastrously, both for the patient and for the surgeon. It is far better to have a patient report daily, if for nothing more than a casual glance, than to allow a case to progress unseen from day to day, allowing only weekly or bi-weekly visits. To be sure, daily visits mount into the expense of the care of the patient, but better cut the fee in accordance with the standard or usual fee for such work and have satisfaction than to allow patients to remain away until some complication develops, which will cost triple the extra surgical cost.

In the proper handling of cases in the after care, is the real secret of success in handling industrial accident cases. In my office the daily visit system is practiced; it inspires the confidence of the patient and allows the surgeon to forestall any possible complications. Many men have not the facilities for proper home care. To these men the daily hand or foot bath, the proper application of a loosened splint, the instillation of collyria or withdrawal of soiled drainage and re-insertion of new, means the more rapid healing and a quicker return to work. Close contact with a patient brings confidence to the patient, and confidence means better co-operation with the surgeon.

No industrial surgeon's equipment is complete without

proper facilities for carrying out a good measure of physiotherapy. The application of physiotherapy in all its various phases is not the haphazard routine that it has been in years gone by, but a special branch of after care in which every surgeon should aim to make himself proficient.

In the Alpine lamp and the Quartz lamp, we have efficient agencies for the removal of pain. In the pain of back sprain, ankle sprain and the general bruises, which are so common, we have a most useful agent if properly used. On the other hand, the Quartz lamp can do much damage if left to the hands of a novice. I have seen several severe burns as the result of too diligent operation of the Quartz light. In the ulcers resulting from injury to varicose legs, I have seen healing progress when all other measures seemed to fail. Indolent granulations, which seem to resist all other treatment, very often resolve and healthy granulations begin, as in old burns of long standing. As to the depth of penetration of the various lights, there is some doubt that it goes very much below the surface covering, but leucocytosis and blood supply are increased.

In diathermy, we have at our command a means of introducing concentrated heat almost to a mathematical exactness. Diathermy has comparatively no germicidal action, but in it we have a powerful agent in producing active congestion, in stimulating the artero-venous circulation to and from the part.

It is to be hoped that in the use of the various mechanical agents at our hand, we will not become lax or hesitant in the quick use of surgical means where such is needed.

## DEATH FOLLOWING CAUTERIZATION OF THE CERVIX

By W. W. CROSS, M. D., Fresno, Calif.

### INTRODUCTORY NOTE

*Some stupid physicians who still claim to doubt that the practice of medicine is a hazardous vocation might learn lessons about safety of more than one kind by a careful perusal of this report by Doctor Cross.*

*That it is still easier to sell some doctors life insurance than it is insurance to protect health and reputation, is an inexplainable fact.—EDITOR.*

This report is made because death followed a procedure usually considered free of danger.

I became familiar with the circumstances regarding this patient at the necropsy. The following information was obtained from the physicians who attended her during her illness.

Mrs. X applied to her physician April 21, 1925, complaining that she had an irritating vaginal discharge. She was 35 years of age, apparently in a fair condition of health. The physical examination failed to disclose significant facts other than those bearing upon the condition for which she applied for treatment. The vaginal discharge, according to the patient, had developed after the birth of her second child, who is now 18 months of age.

Examination revealed a vaginal discharge, irritation of the vagina and vulva, the skin of the thighs showed discoloration, apparently caused by the secretion, the cervix was red, lacerated, and had granulating tissue protruding from the opening.

Treatment consisted in an application of silver nitrate in a 25 per cent solution to the cervix, and an antiseptic douch prescribed for her use at home. The silver solution was used at intervals of four days. Twenty-two days following her first visit, menstruation occurred, according to her statement, and she was advised to have the cervix cauterized, as the local condition remained the same. She was examined by an associate, as well as by the physician in charge, and both were of the opinion she was not pregnant.

Cauterization of the cervix was performed with an olive-point electrode, the canal curetted, and the surface again seared over with the olive point, the canal loosely packed with iodoform gauze. This was done June 2; the gauze was removed June 4. The next morning, June 5, the patient had chills, fever, and a general appearance of

serious illness. At this time the husband became dissatisfied with the situation and discharged the physician.

From those who subsequently directed the treatment, it was learned that the patient had a temperature of 105, the circulation was embarrassed, and blood cultures were positive for streptococcus; white blood count, 6200. Death resulted on the eighth day following cauterization.

At the post mortem made the day following death, an examination of the abdomen and genital canal only was made. Upon opening the abdomen a moderate amount of gas was found in the intestine, the surface was smooth, normal in color and free from exudate, except over the surface of the uterus, tubes, and ovaries. In this area the surface was smooth, free from exudate, and glistening. The color was changed by a uniform red which traveled apparently along the course of the blood vessels; the uterus and appendages were not swollen or enlarged. These structures, including the greater portion of the vagina, were removed. When the genital canal was divided posteriorly, the cervix showed a slight discoloration, due to hemorrhage into the tissue. There was not evidence of trauma. The mucous membrane was smooth, red and free of any evidence of trauma; the cavity free of membrane or debris.

It is worthy of comment that the embalmer injured his finger during the process of injection, and died four weeks later from septic poisoning. As the husband became dissatisfied with the patient's physician, a change was made and during the time she was under treatment by the second physician the question of pregnancy was raised. Had pregnancy been present, a criminal proceeding undoubtedly would have resulted. Although cultures were not made from the cervix, it does not appear unreasonable to ascribe the patient's death to infection lurking in the tissues cauterized. The end of a normal delivery could have resulted in disaster, charged to faulty attention at the time of delivery. Repair of the cervix and perineum could easily be the exciting cause of a disaster. The making of cultures before simple repairs may be the means of avoiding serious complications in a simple procedure, usually free of concern to the operator.

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**Demonstration of Female Sex Hormone in Circulating Blood**—R. T. Frank, M. L. Frank, New York; R. G. Gustavson and W. W. Weyerts, Denver (Journal A. M. A.), have been able to show that the female sex hormone is present at times in demonstrable quantity in the circulating blood. The hormone is present only in great dilution. From the blood of five sows in estrus and the blood of one bull, an alcohol benzene extract was made and injected into one or more castrated rats and the vaginal smear watched. None of the anestrus bloods, or the male blood, gave a positive reaction. Of the five bloods obtained from estrous animals, four gave positive results with a total dosage of 75 mg. of crude extract. With present methods of extraction, at least 300 cc. of estrous blood is necessary to obtain 75 mg. of extract necessary for the test. Even with the present crude and not quantitative methods of concentration, these results show that: (1) the female sex hormone can be recovered from the circulating blood, and (2) the quantity in circulation is greater during estrus than during the interval.

**Underestimation of Good Results in Mental Diseases**—The careers of 1054 consecutive patients admitted to the department for mental and nervous diseases of the Pennsylvania Hospital were studied by Earl D. Bond, Philadelphia (Journal A. M. A.), for a period of from five to ten years. The patients had the more severe mental diseases. Of 1054 consecutive patients admitted, thirty were lost. Of the 1024 patients that could be followed over five years, 274 recovered and stayed well; 159 improved greatly; 331 died, and 260 remained stationary or grew worse. Bond says that everything in psychiatry today points to the prospect of increasing the recovery percentage by getting at mental diseases early. If by getting at them late, consecutive cases may be expected to show full return to function in 25 per cent and amelioration in 15 per cent more, the general practitioner first, and the psychiatrist later, is justified in taking as hopeful an attitude as is taken for surgical problems.